

O'BRIEN
Serial No. 10/052,107

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REMARKS

(u) Claims 1-6 and 8 stand variously rejected in the outstanding Official Action. Claims 1-3 have been cancelled without prejudice and claims 4, 6 and 8 amended. Accordingly, claims 4-6 and 8 are the only claims remaining in this application.

(u) The Examiner's acknowledgment of applicant's claim for foreign priority and receipt of the certified copy of the priority document is very much appreciated. Additionally, the Examiner's consideration of the prior art submitted with applicant's Information Disclosure Statement is appreciated.

(u) Claims 1-6 and 8 stand rejected under 35 USC 102(b) as being anticipated by Pizzi (WO 98/34380). However, nowhere in the Pizzi reference is there a disclosure of the features set out in claims 4, 5 and 6, i.e. Reed Solomon forward error correction. Applicant has cancelled without prejudice claims 1, 2 and 3, and therefore claim 4 has been amended to read in independent form, with claims 5, 6 and 8 dependent thereon. Claim 4 requires that the error correction corresponds to Reed Solomon forward error correction. Because there is no disclosure of this feature or method step in the Pizzi reference, Pizzi cannot support a rejection under 35 USC 102.

(u) Claim 1 is rejected under 35 USC 102(b) as anticipated by Fang '109, Bentall, Ayanoglu, Pasternak, Hirata '989, Toyoda, Aikawa or Law. Because claim 1 as been cancelled without prejudice, the rejection thereof under 35 USC 102 is mooted.

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(u) Claim [?] is rejected under 35 USC 102(e) as anticipated by Fang '715 in section 3 of the Official Action. Applicant's undersigned representative left a message with the Examiner questioning what claim was intended to be referenced in section 3 on page 2 of the Official Action. The Examiner has returned applicant's call and indicated that a reference to claim 1 was intended in section 3. Therefore, applicant notes that this claim has been cancelled without prejudice, thereby mooting the rejection.

(c) Claims 1-6 and 8 stand rejected under 35 USC 112 (second paragraph) as being indefinite. Specifically, regarding claims 1 and 2, the Examiner suggests that the use of the word "hardening" is unclear in the context utilized. Applicant encloses herewith the definition of "hardening" and the Examiner's attention is directed to definition number 4, i.e. "to protect from possible danger...." Moreover, the Examiner's attention is directed to applicant's specification, page 2, lines 2-5, which defines "cell hardening" as "resistance to cell corruption."

(c) Because the present claims relate to a method of hardening ATM cells, the meaning of this word is clear in view of the dictionary definition and would be even more clear to those of ordinary skill in the art reviewing applicant's specification. Therefore, although claims 1 and 2 have been cancelled without prejudice, the subject matter thereof has been incorporated into amended claim 4 and any future rejection of claim 4 based on the use of the word "hardening" is respectfully traversed.

(u) Apparently claims 2-6 and 8 were only unclear because they depended from an alleged unclear independent claim 1. Presumably because amended claim 4 is clear, claims

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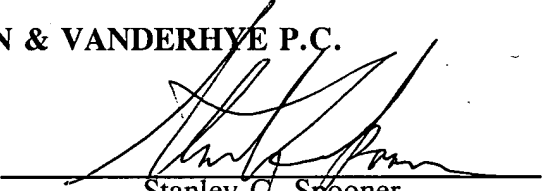
5, 6 and 8 dependent thereon are also similarly clear. Accordingly, any further rejection of claims 4-6 and 8 under 35 USC 112 (second paragraph) is respectfully traversed.

(u) Having responded to all objections and rejections set forth in the outstanding Official Action, remaining claims 4-6 and 8 are believed to be clearly in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact applicant's undersigned representative.

Respectfully submitted,

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Enclosure:
Page 553, Webster's Ninth New Collegiate
Dictionary

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hardball • hare 553

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[Gk *haptin* + E -o- + hemoglobin]
rate-containing serum alpha globulins
globin in the plasma
[Jp *harakiri*, fr. *hara* belly + *kiri* cut-
sempowment practiced by the Japa-
by a court in lieu of the death penalty
; fr. MF *arenge*, fr. Olt *aringa*, deriv.
origin: akin to OHG *heri* army and to
Y. RING (15c) 1: a speech addressed
nastic ranting speech or writing 3

u-ing vi (1660): to make a harangue
harangue (*haranguing* me ... on the
-haranguer n
asser, fr. MF, fr. *harer* to set a dog on,
e dogs, of Gmc origin; akin to OHG
22) 1: to worry and impede by re-
2 a: EXHAUST, FATIGUE b: to annoy
a-rass-e n — *har-rass-ment* \-mənt/ n
herberger, fr. MF, host, fr. *herberge*
OHG *heriberga* (14c) 1 archaic: a
tgings 2 a: one that pioneers in or
URSOR b: one that presages or fore-
FORERUNNER
inger of: PRESAGE
ge, *herberwe*, fr. OE *herebeorg* military
i, fr. *here* army (akin to OHG *heri*) +
burg fortified town — more at HARRY,
security and comfort: REFUGE 2: a
d and deep enough to furnish anchor-
— *har-bor-ful* \-fūl/ n — *har-bor-less*

g \-b(ə)-rij/ vi (12c) 1 a: to give
the home or habitat of: CONTAIN (the
to hold a thought or feeling of ~ed a
er in or as if in a harbor 2: LIVE —

ALTER, HARBOR
r\ n (1769): an officer who executes
e of a harbor
eal (*Phoca vitulina*) that occurs along
misphere and often ascends rivers

R
ard; akin to OHG *hart* hard, Gk *kratos*
easily penetrated: not easily yielding
pable of being spread: very firm 2 a
acid taste (2): strongly alcoholic b
of salts (as of calcium or magnesium)
p (~ water) 3 a: of or relating to
trating power (~ X rays) b: having
tographic contrast (as ~ negative) 4
er (~ money) b of currency: convert-
c: being high and firm (~ prices) 5
~ yarns) b: having a smooth cloth
5 a: physically fit (in good ~ condi-
s disease) c: free of weakness or de-
FE (reached a ~ agreement) (2): not
TUAL (~ evidence) b: CLOSE, SEARCH-
rom sentimentality or illusion: REALIS-
; in responsiveness: OBDURATE, UNFEEL-
ifficult to bear or endure (~ luck) (~
TABLE (sales taxes are ~ on the poor) (a
z consideration, compassion, or gentle-
dlord) (2): INCORRIGIBLE, TOUGH (a ~
or offensive in tendency or effect (said
JL (~ feelings) (3): STRICT, UNRELEN-
NCLEMENT (~ winter) e (1): intense
blows) (2): demanding the exertion of
d endurance (~ work) (3): perform-
energy, intensity, or persistence (a ~
by sharp or harsh outline, rigid ex-
ecrably defined: STARK (~ shadows) c
or resonance (~ singing tones) d
se respectively — used of c and g 10 a
resolve: TROUBLESOME (~ problems)
; by) (2): difficult to comprehend or
ing difficulty in doing something (~ of
tize or demagnetize 11: being at once
ital to health (such ~ drugs as heroin)
on (~ detergents) (~ pesticides like
1, or using the methods of one or more
fe sciences, or the physical sciences (a ~

us mean demanding great exertion or
site of all that is easy; DIFFICULT implies
e surmounted or puzzles to be resolved
e patience, or courage; ARDUOUS stresses
rsevering exertion. *syn* see in addition

y 2: poorly provided (he was hard up

with great or utmost effort or energy
rk) (the children played ~) b: in a
: to the full extent — used in nautical
to an immoderate degree (hitting the
close, or concentrated manner (stared ~
nner as to cause hardship, difficulty, or
cor, bitterness, or grief (took his defeat
GHTLY 4: to the point of hardness (the
ime or space (the house stood ~ by the

dj (1864): not to be modified or evaded

: a book bound in hard covers

hard-ball \-bōl/ n (1944) 1: BASEBALL 2: forceful uncompromising
methods employed to gain an end (played political ~ to win the nomi-
nation)

hard-bitten \-'bit-'n/ adj (1784) 1: inclined to bite hard 2: sea-
soned or stealed by difficult experience: TOUGH
hard-board \-'hārd-'bō(ə)rd-, -bō(ə)rd/ n (1925): a very dense fiberboard
usu. having one smooth face
hard-boil \-'bōi(ə)l/ vi [back-formation fr. *hard-boiled*] (1895): to cook
(an egg) in the shell until both white and yolk have solidified
hard-boiled \-'bōi(ə)ld/ adj (1886) 1: devoid of sentimentality
hard-(a ~ drill sergeant) (a ~ detective story) 2: HARDHEADED.
PRACTICAL (handle aid programs on a friendly but ~ business basis —
N.Y. Times)

hard-boot \-'bü(ə)t/ n (1922): HORSEMAN
hard-bound \-'baund/ adj (1926): HARDCOVER
hard candy n (1925): a candy made of sugar and corn syrup boiled
without crystallizing and usu. fruit-flavored
hard-case \-'hārd-'kās/ adj (1836): HARD-BITTEN, TOUGH
hard-case \-'kās/ n (1836): a tough or hardened person
hard cider n (1789): fermented apple juice
hard clam n (1799): a clam with a thick hard shell; *specif*: QUAHOG
hard coal n (1846): ANTHRACITE
hard-coated \-'hārd-'kōt-'əd/ adj, of a dog (ca. 1898): having a crisp
harsh-textured coat
hard copy n (1890): readable copy produced on paper in normal size
type (as from microfilm or computer storage)
hard-core \-'kō(ə)r-, -kō(ə)r/ adj (1936) 1 a: of, relating to, or being
part of a hard core (~ poverty) (the ~ unemployed) b: CONFIRMED
DIE-HARD (~ rock fans) (a ~ liberal) 2 of pornography: containing
explicit descriptions of sex acts or scenes of actual sex acts — compare
SOFT-CORE 3: characterized by or being the purest or most basic form
of something: FUNDAMENTAL (~ rock music) (a room gussied up in ~
French provincial style — John Canaday)

hard core n (1936) 1: a relatively small enduring core of society
marked by apparent resistance to change or inability to escape a per-
sistent wretched condition (as poverty or chronic unemployment) 2: a
militant or fiercely loyal faction (as of a political unit)
hard-cover \-'hārd-'kav-'ər/ adj (1949) 1: having rigid boards on the
sides covered in cloth or paper (~ books) 2: of or relating to hard-
cover books (~ sales) — *hard cover* n
hard-edge \-'hārd-'ej/ adj (1960): of or relating to abstract painting
characterized by geometric forms with clearly defined boundaries
hard-en \-'hārd-'n/ vb *hard-ened*; *hard-en-ing* \-'hārd-'n-ŋ/ [ME
hardnen, fr. *hard* + *-nen -en*] vi (bef. 12c) 1: to make hard or
harder: INDURATE 2: to confirm in disposition, feelings, or action;
esp: to make callous (~ed his heart) 3 a: INURE, TOUGHEN (~
troops) b: to inure to cold or other unfavorable environmental
conditions — often used with *off* (~ off half-hardy annual plants) 4:
to protect from possible danger from blast or heat with concrete or earth
or by situating underground (~ a missile emplacement) ~ vi 1:
to become hard or harder 2 a: to become confirmed or strengthened
(opposition began to ~) b: to assume an appearance of hardness or
severity (her face ~ed at the word) 3: to become higher or less sub-
ject to fluctuations downward (prices ~ed quickly)

hard-en-er \-'hārd-'n-ər-, -n-ər/ n (1611): one that hardens; esp: a sub-
stance added (as to a paint or varnish) to harden the film
hard-en-ing n (ca. 1828) 1: something that hardens 2: SCLEROSIS (~
of the arteries)

hard-fist-ed \-'hārd-'fis-'təd/ adj (1656) 1: STINGY, CLOSEFISTED 2:
HARDHANDED

hard goods n pl (1934): DURABLES
hard-hack \-'hārd-'hāk/ n (1814): a shrubby American spirea (*Spiraea
tomentosa*) with rusty hairy leaves and dense terminal panicles of pink
or occas. white flowers

hard-handed \-'hārd-'hænd/ adj (1590) 1: having hands made hard by
labor 2: STRICT, OPPRESSIVE — *hard-handed-ness* n

hard hat \-'hārd-'hæt/ n (1926) 1: a protective
hat made of rigid material (as metal or fiberglass) and worn esp. by
construction workers 2: a construction worker 3: a conservative
who is strongly opposed to nonconformists

hard-head \-'hārd-'hed/ n (15c) 1 a: a hardheaded person b: BLOCK-
HEAD 2: any of several fishes esp. with a spiny or bony head; esp.: AT-
LANTIC CROAKER 3: any of several knapweeds (esp. *Centaurea nigra*)
— usu. used in pl. but sing. or pl. in constr.

hard-head-ed \-'hed-'əd/ adj (1583) 1: STUBBORN, WILLFUL 2: not
moved by sentiment or impulse: SOBER, REALISTIC (~ common sense)
— *hard-head-ed-ly* adv — *hard-head-ed-ness* n

hard-heart-ed \-'hārd-'hārt-'əd/ adj (bef. 12c): lacking in sympathetic
understanding: UNFEELING, PITILESS — *hard-heart-ed-ly* adv — *hard-
heart-ed-ness* n

hard-hit-ting \-'hit-'ŋ/ adj (1839): strikingly effective in force or result
(a ~ sales campaign) (a ~ expose on political corruption)

hard-i-hood \-'hārd-'ē-'hüd/ n (1570) 1 a: resolute courage and fortitude
b: resolute and self-assured audacity often carried to the point
of impudent insolence 2: VIGOR, ROBUSTNESS *syn* see TEMERITY

hard-iment \-'mənt/ n [ME, fr. MF, fr. OF, fr. *hardi* bold, hardy] (14c)
1 archaic: HARDCHOOD 2 obs: a bold deed

hard-ing-grass \-'hārd-'ŋ-'grās/ n, often cap [prob. fr. the name *Harding*]
(ca. 1922): a perennial grass (*Phalaris tuberosa stenoptera*) of Australia
and southern Africa introduced into No. America as a forage grass

hard labor n (1833): compulsory labor of imprisoned criminals as a
part of the prison discipline

hard-line \-'hārd-'līn/ adj (1962): advocating or involving a persistently
firm course of action: UNYIELDING (a ~ policy toward polluters) —
hard-line-er \-'lī-'n-ər/ n

hard-liner n pl, chiefly Brit (1824): hard luck
hard-ly \-'hārd-'lē/ adj [ME *hardlice*, fr. OE *heardlice*, fr. *heard* hard]
(bef. 12c) 1: with force: VIGOROUSLY 2: in a severe manner
; HARSHLY 3: with difficulty: PAINFULLY 4: used to emphasize a
minimal amount (I ~ knew her) (almost new — ~ a scratch on it) 5
: certainly not (that news is ~ surprising)

usage In senses 4 and 5 *hardly* has a negative meaning, and its use
with an additional negative is usu. considered substandard. Such use,
esp. in *can't hardly*, is generally limited to speech, in which the double

negative serves for emphasis. It is seldom found in edited prose except
in the transcription of speech.

hardly ever adv (1892): almost never: very seldom (we *hardly* ever see
them anymore)

hard maple n (1790): SUGAR MAPLE

hard-mouthed \-'hārd-'mauthd-, -mauth/ adj (1617) 1 of a horse: not
sensitive to the bit 2: OBSTINATE, STUBBORN

hard-ness \-'nəs/ n [ME, fr. OE *heardness*, fr. *heard*] (bef. 12c) 1: the
quality or state of being hard 2: the cohesion of the particles on the
surface of a mineral as determined by its capacity to scratch another or
be itself scratched — compare MOHS SCALE

hard-nosed \-'hārd-'nōzd/ adj (1927) 1: HARD-BITTEN, STUBBORN 2:
HARDHEADED 2 (~ budgeting)

hard-of-hearing \-'hārd-'ə(v)-'hi(ə)-rŋ/ adj (15c): of or relating to a
defective but functional sense of hearing

hard-on \-'hārd-'on-, -än/ n, pl *hard-ons* (1860): an erection of the penis
— usu. considered vulgar

hard palate n (1860): the bony anterior part of the palate forming the
roof of the mouth

hard-pan \-'hārd-'pan/ n (1817) 1: a cemented or compacted and often
clayey layer in soil that is impetrable by roots 2: a fundamental
part: BEDROCK

hard pine n (1884): a pine (as longleaf pine or pitch pine) that has hard
wood and leaves usu. in groups of two or three; also: the wood of a
hard pine

hard-pressed \-'prest/ adj (1825): HARD PUT; esp.: being under finan-
cial strain

hard put adj (1893): barely able: faced with difficulty or perplexity
(was *hard put* to find an explanation)

hard rock n (1967): rock music marked by a heavy jarring beat, high
amplification, and usu. frenzied performances

hard rubber n (1860): a firm rubber or rubber product; esp: a nor-
mally black horny substance made by vulcanizing natural rubber with
high percentages of sulfur

hard sauce n (1899): a creamed mixture of butter and powdered sugar
often with added cream and flavoring (as vanilla or rum)

hard-scrabble \-'hārd-'skrab-'əl/ adj (1888): yielding or gaining a mea-
ger living by great labor (~ farms)

hard sell n (1952): aggressive high-pressure salesmanship — compare
SOFT SELL

hard-set \-'hārd-'set/ adj (15c): RIGID, FIXED
hard-shell \-'shel/ or hard-shelled \-'sheld/ adj (1838): UNCOMPROMIS-
ING, CONFIRMED (a ~ conservative)

hard-shell clam \-'hārd-'shel-'kləm/ n (1799): QUAHOG — called also *hard-
shelled clam*

hard-shell crab n (1902): a crab that has not recently shed its shell —
called also *hard-shelled crab*

hard-ship \-'hārd-'shīp/ n (13c) 1: PRIVATION, SUFFERING 2: some-
thing that causes or entails suffering or privation

hard-stand \-'stand/ n (1944): a hard-surfaced area for parking an
airplane

hard-stand-ing \-'stan-'dŋ/ n (1944): HARDSTAND

hard-sur-face \-'sər-'fəs/ vi (1928): to provide with a paved surface
hard-tack \-'tak/ n (1836) 1: a saltless hard biscuit or bread made of
flour and water 2: any of several mountain mahoganies

hard-times token n (1922): one of the tokens issued during the contro-
versy between the Jacksonian administration and the bank of the U.S.

hard-top \-'tɒp/ n (1949): an automobile or a motorboat having a per-
manent rigid top; also: such an automobile styled to resemble a con-
vertible

hard-ware \-'hār-'dwə(ə)r-, -dwe(ə)r/ n (1515) 1: ware (as fittings,
cutlery, tools, utensils, or parts of machines) made of metal 2: major
items of military or police equipment or their components 3: the
physical components (as electronic and electrical devices) of a vehicle
(as a spacecraft) or an apparatus (as a computer); also: the physical
equipment of a system of transportation 4: devices (as tape record-
ers, phonographs, or closed-circuit television) often used as instruc-
tional equipment (educational ~)

hardware cloth n (1914): rugged galvanized screening commonly in
meshes of two, four, or eight squares to the square inch

hard wheat n (1812): a wheat with hard flinty kernels that are high in
gluten and that yield a strong flour esp. suitable for bread and maca-
roni

hard-wood \-'hār-'dwūd/ n (1568) 1: the wood of an angiospermous
tree as distinguished from that of a coniferous tree 2: a tree that
yields hardwood

hardwood adj (1817) 1: having or made of hardwood (~ floors) 2:
consisting of mature woody tissue (~ cuttings)

hard-wood-ed \-'hār-'dwūd-'əd/ adj (1858) 1: having hard wood that is
difficult to work or finish 2: HARDWOOD

hard-work-ing \-'hār-'dwɔrk-'ŋ/ adj (1774): INDUSTRIOUS

hard-y \-'hārd-'ē/ adj *hard-ier*, -est [ME *hardi*, fr. OF, fr. (assumed) OF
hardir to make hard, of Gmc origin; akin to OE *heard* hard] (13c) 1:
BOLD, BRAVE 2: AUDACIOUS, BRAZEN 3 a: inured to fatigue or hard-
ships: ROBUST b: capable of withstanding adverse conditions (as in
living outdoors over winter without artificial protection) (~ plants)
(~ cattle) — *hard-ly* \-'hārd-'lē/ adv — *hard-iness* \-'hārd-'ē-'nəs/ n

Hardy-Weinberg law \-'hārd-'ē-'wīn-'bɜrg-'l/ n [G. H. Hardy + 1947 Eng.
mathematician and W. Weinberg, 20th cent. Ger. scientist] (1950): a
fundamental principle of population genetics: population gene frequen-
cies and population genotype frequencies remain constant from genera-
tion to generation if mating is random and if mutation, selection, immi-
gration, and emigration do not occur — called also *Hardy-Weinberg
principle*

hare \-'hə(ə)r-, -he(ə)r/ n, pl *hares* [ME, fr. OE *hara*; akin to
OHG *haso* hare, L. *canis* hoary, gray] (bef. 12c): any of various swift
timid long-eared lagomorph mammals (family Leporidae and esp.

\ə/ about \ʌ/ kitten, F table \ə/ further \ə/ ash \ə/ ace \ə/ cot, cart

\a/ out \ch/ chin \t/ bet \e/ easy \g/ go \i/ hit \i/ ice \j/ job

\j/ sing \ɒ/ go \ɔ/ law \ɔ/ boy \θ/ thin \θ/ the \ʊ/ foot \u/ foot

\y/ yet \z/ vision \ə, k, ŋ, æ, œ, u, i, e, \ see Guide to Pronunciation